

UMEX

UNION MINIERE EXPLORATIONS
AND MINING CORPORATION LIMITED

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GEOCHEMICAL SOIL SURVEY

ON THE

OD 13 - 18 MINERAL CLAIMS

Record Nos. YA2298, - YA2303

$64^{\circ}49'N$, $139^{\circ}37'W$

N.T.S. 116B/13

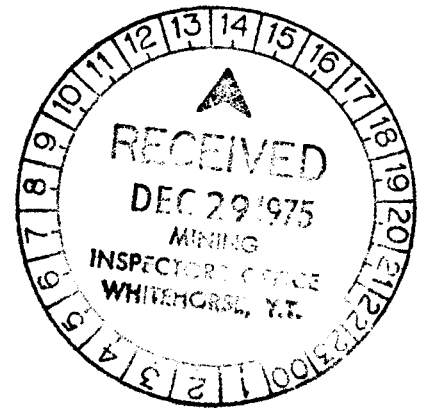
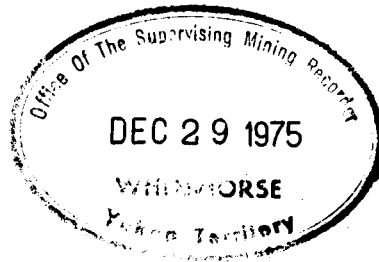
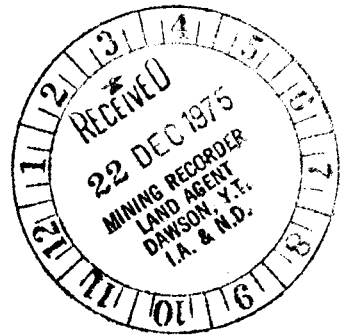
by

Colin V. Dyson, P.Eng.

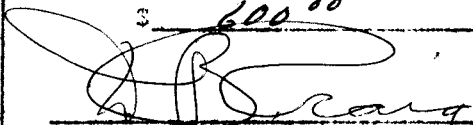
Work Done: August 20 - August 24, 1975

Date: December 1975

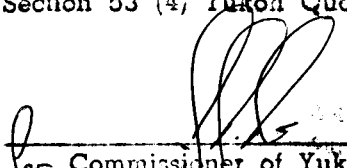
Owner: Union Miniere Explorations and
Mining Corporation Limited

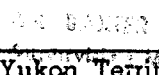


This report has been examined by the Geological Evaluation Unit and is recommended to the Commission to be considered as representation work in the amount of \$ 600.00


Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4), Yukon Quartz Mining Act.


per Commissioner of Yukon Territory


Mining Recorder

070057

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GEOCHEMICAL SOIL SURVEY ON THE
OD 13 - 18 MINERAL CLAIMS

INTRODUCTION

In the period August 20 to August 24, 1975, a geochemical soil survey for total lead, zinc, and copper was completed on the OD 13-18 mineral claims. The claims are located approximately 26 miles north of Mount Ina, and 30 miles west of Caldwell Lake, at latitude and longitude $64^{\circ}49'N$, $139^{\circ}37'W$ (Figure 1). They lie within the Dawson Mining Division and cover a northwesterly facing cirque and ridge where elevations range from 4000 to 6000 feet.

Access to the property was by helicopter from a base established at Mile 68 on the Dempster Highway, a distance of approximately 36 miles east of the claims.

PROPERTY

The OD 13-18 claims were staked on August 14, 1975 and recorded on August 19, 1975. They were all subsequently transferred to Union Miniere Explorations and Mining Corporation Limited, for whom the geochemical survey was performed.

Details of the claims are as follows:

| Claim Name | Record Nos. | Expiry Date |
|------------|-----------------|-----------------|
| OD 13 - 18 | YA2298 - YA2303 | August 19, 1976 |

GENERAL GEOLOGY

The claims are underlain by a thick sequence of Proterozoic sedimentary rocks. In succession from the basal sequence, they consist of thick black shales with laminated grey siltstone interbeds overlain by massive grey dolomite. An orange-weathering laminated carbonate unit, with minor shale bands caps the sequence. Crossing the area in a northeasterly to southwesterly direction is a dark-weathering diabase dyke some 200 feet thick.

GEOCHEMICAL SOIL SURVEY

Methods

In the course of the survey a total of 89 soil samples were collected

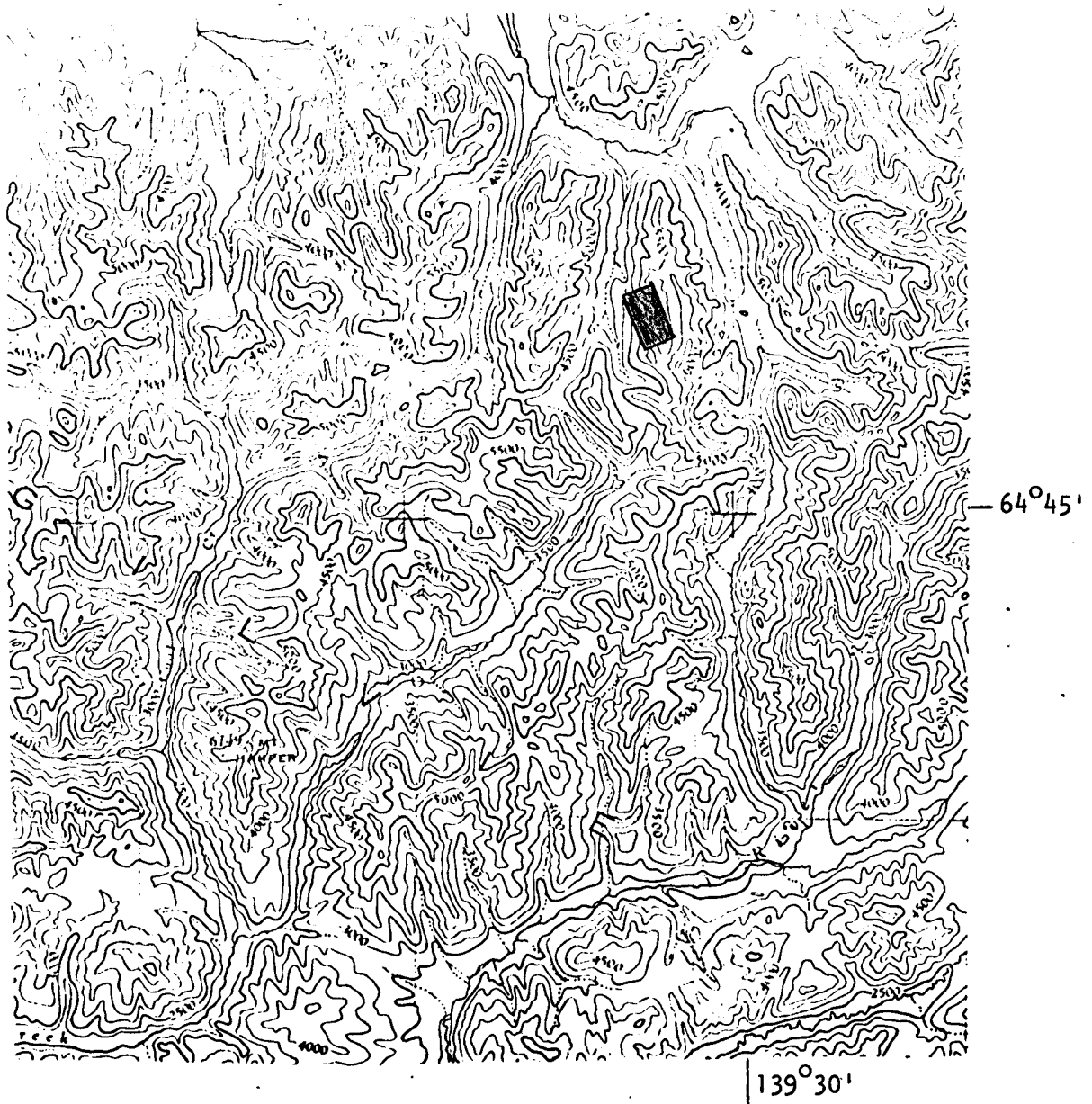


FIGURE 1

LOCATION MAP, OD CLAIMS

1/250,000

C. J. J. J.

over 3.56 miles of line, and subsequently analysed for total lead, zinc, and copper. At each sampling site a hole was dug with a mattock and 4-6 ounces of "B" horizon soil - where available - was taken. The sample was placed in a high, wet-strength kraft sample bag and marked appropriately. The writer was in the field on August 20 to organize the survey and to study the general geology on the claims. The soil sampling was performed by Mr. P. Osborne and Mr. R. Tolbert in the period August 20 to August 24, 1975.

Grid Control

Several northwesterly trending soil sample lines were established on the claims parallel and sub-parallel to the claim location lines, depending on the topography. A Topofoil chain¹ and compass was used to control distances and direction and to tie in with the existing claim posts. Sample site stations were marked by coloured flagging at 200 foot spacings along the lines, with the station coordinates marked on the appropriate flag by felt pen. The grid was tied into obvious topographic features.

Analytical Treatment of Soil Samples

The samples were analysed by Acme Analytical Laboratories in Dawson City. The samples were dried in their respective sample bags at a temperature of 120^oF and then sieved to -80 mesh through a nylon screen. The prepared samples were digested for 1 - 1½ hours in aqua-regia, bulked with deionized water, and analysed by atomic absorption.

Results

Statistical plots of cumulative frequency versus concentration have been completed for the lead and zinc results. Figures 2 and 3, respectively. Statistical analysis of the lead results (Figure 2) defines populations of 10-120 ppm, 130-250 ppm, and +260 ppm lead; the 120-130 ppm and 250-260 ppm ranges are zones of overlap. Anomalous lead values are considered to be those of the +~~260~~ ppm population.

¹The Topofoil chain is a "lost" thread measuring device in which a counter accurately records in feet from 0 to 15,000 feet the length of thread unreeling from the unit when measuring a length or distance covered. The operator attaches the end of the thread to a fixed point, the counter is set a zero and the operator moves on foot carrying the Topofoil chain. As the thread unwinds, the counter records the length. The counter readout is accurate to +0.2%; on completion of a measurement the counter is reset at zero. The bio-degradeable thread is cut and abandoned.

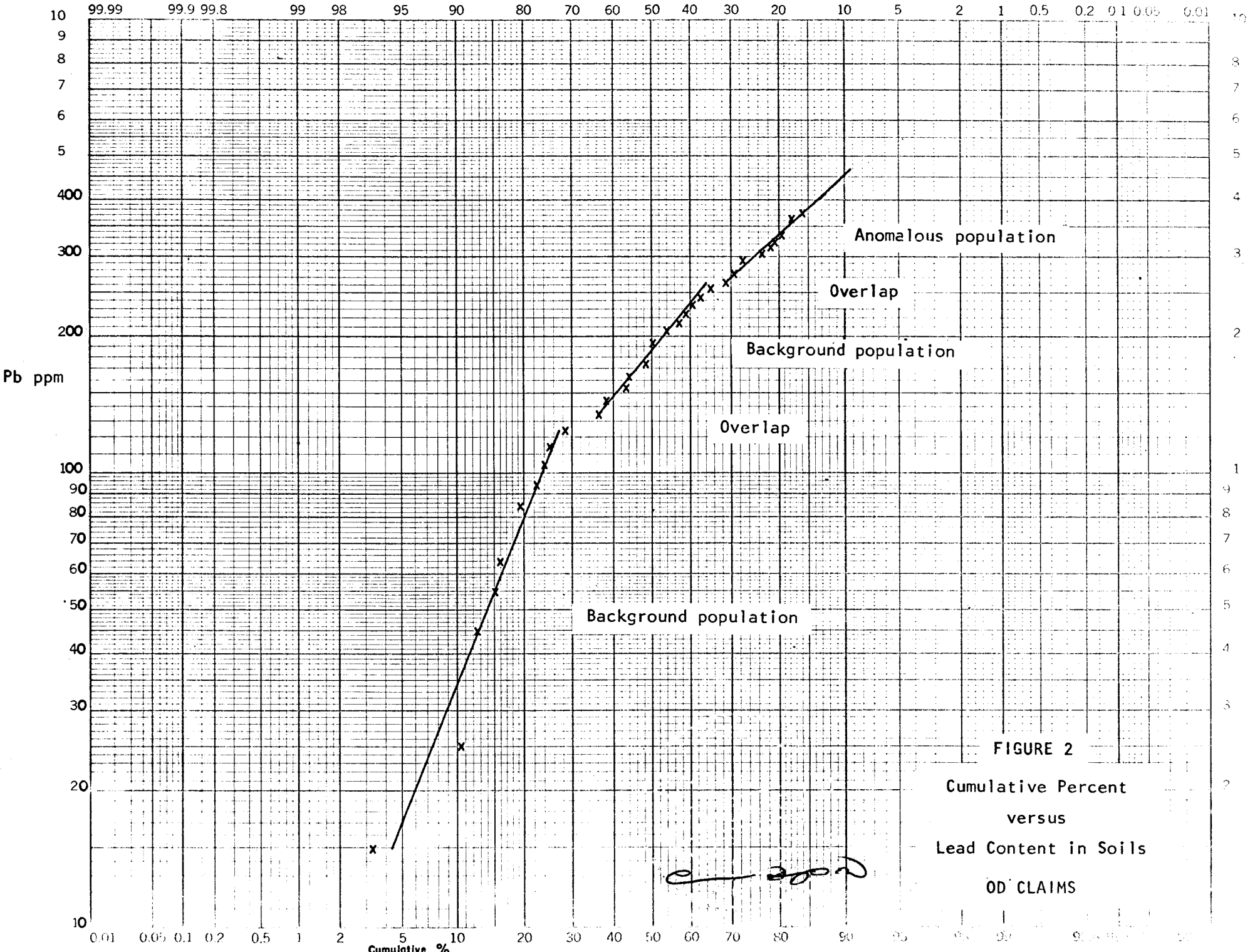
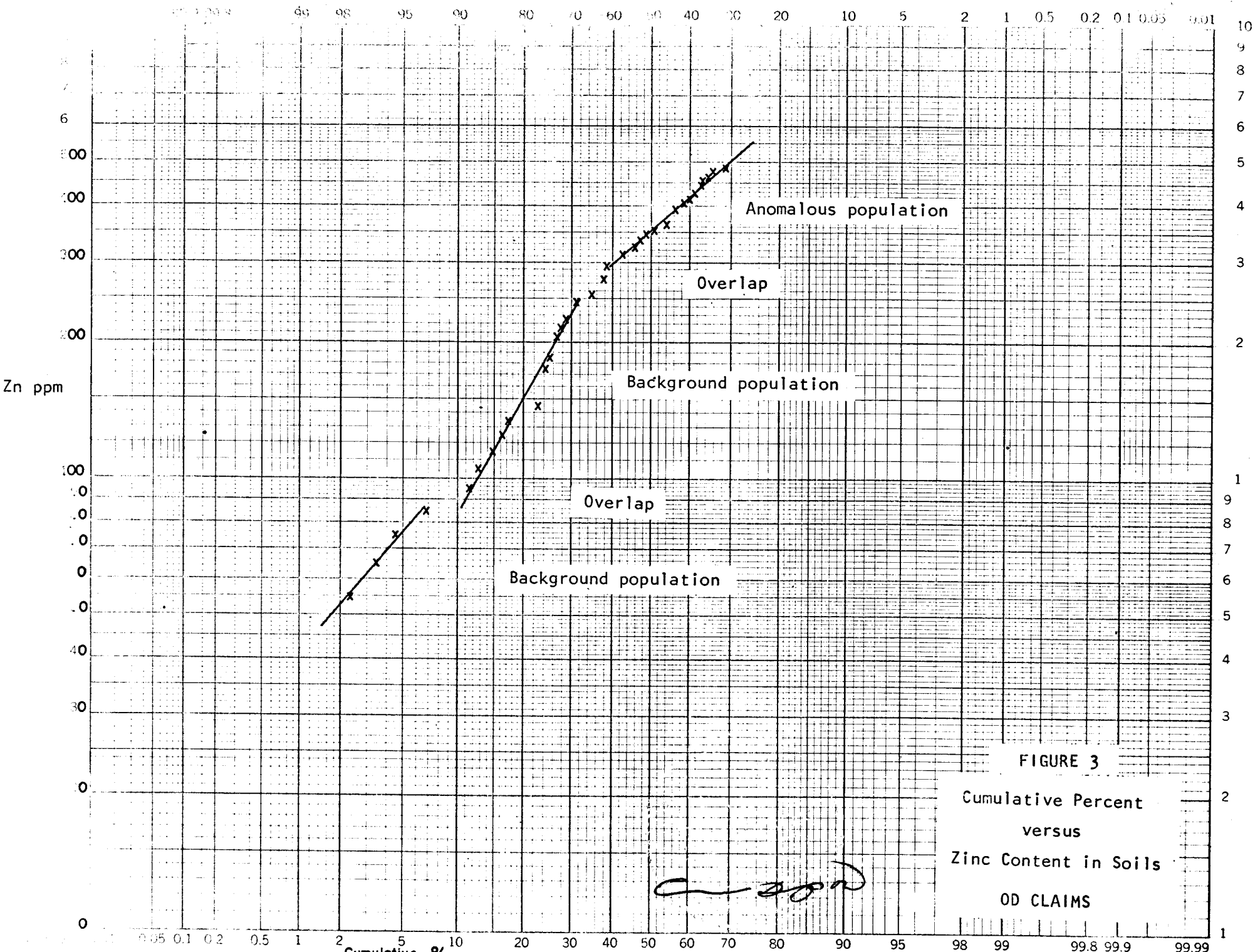


FIGURE 2
Cumulative Percent
versus
Lead Content in Soils
OD CLAIMS



Statistical analysis of the zinc results (Figure 3) defines populations of 50-90 ppm, 90-250 ppm and +290 ppm Zn; the 250-290 ppm range is a zone of overlap. Anomalous zinc values are considered to be those of the +290 ppm Zn population.

Qualitative examination of the copper values indicates that no significant anomalous patterns are present.

Two main coincident lead/zinc geochemical anomalies are defined by the results (Figures 4 and 5). Both anomalies trend east-west and are elongated down fairly steep slopes topographically. The copper shows no defined anomalous pattern (Figure 6).

CONCLUSIONS AND RECOMMENDATIONS

1. A geochemical soil survey performed on the OD 13-18 mineral claims outlined two main well-defined, coincident lead/zinc geochemical anomalies.
2. Further work is recommended on these claims, directed towards locating a source and explanation for the anomalies.
3. Additional soil sampling is recommended to "close" off both anomalies.



C.V. Dyson, P.Eng.



LEGEND

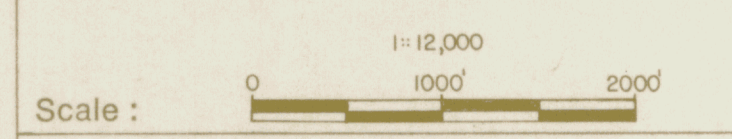
- Stream
- Soil sample (Pb in ppm)
- Contoured at 260ppm.

C. Sproul

Figure No. 4

OD CLAIMS (13-18)
1975
Pb SOIL GEOCHEMISTRY

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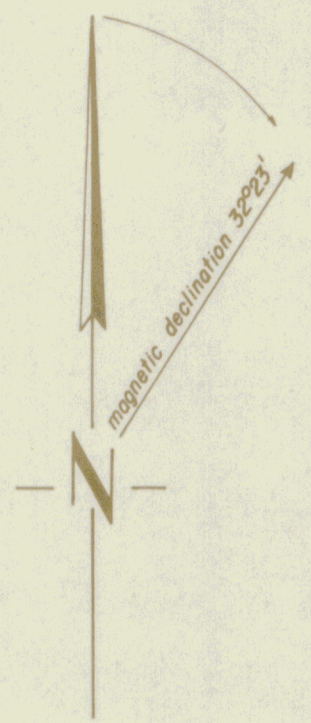
UMEX CORPORATION LTD.

DRAWN BY: H. Helm
DATE: November 20, 1975
SURVEYED BY: R. Tolbert, R. Osborn

DWG. No.

To accompany a report by Colin V. Dyson, P.Eng.,
entitled "Geochemical Soil Survey on the OD 13-18,
Mineral Claims, Dawson Mining Division, Y.T.",
dated December 1975.

TO ACCOMPANY A REPORT BY COLIN V. DYSON, P.ENG.,
ENTITLED "GEOCHEMICAL SOIL SURVEY ON THE OD 13-18,
MINERAL CLAIMS, DAWSON MINING DIVISION, Y.T.",
DATED DECEMBER 1975.



LEGEND

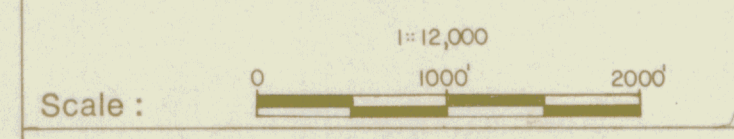
- Stream
- Soil sample (Cu in ppm)
- Contoured at 100 ppm.

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Figure No. 6

**OD CLAIMS (13-18)
1975
Cu SOIL GEOCHEMISTRY**

NTS. 116B/13



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DRAWN BY: H. Holm
DATE: November 20, 1975
SURVEYED BY: R. Tolbert, P. Osborne

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